# Atari System V, Release 4
## RELEASE NOTES
### Developer's Prerelease
### Atari Release Level 1.0-08

You have just purchased the Atari System V, Release 4, Developer's Prerelease. This document describes the contents of this release, the configuration requirements, and known bugs and problems.

Your purchase may include the full system comprised of the TT and the Developer's Kit or it may consist of the Developer's Kit only, if you already have a TT. In either case, these release notes describe the contents of the package you chose.

## Nondisclosure

This release is covered by the nondisclosure agreement signed between you and the Atari Corporation. Please read your copy of this agreement in full before discussing this release with anyone outside of your organization

## Distribution Contents

Atari System V, Release 4, is derived from the AT&T UNIX System V, Release 4. Included in the distribution are

- *Atari System V, Release 4, Version UE12*, ported by UniSoft Ltd.

- *X Window System Version 11, Release 4*, MIT

- *OSF/Motif Window Manager, Version 1.1.2*, Open Software Foundation

- *WISh2 Graphic Shell*, Non Standard Logics

- *Wx2 Editor*, Non Standard Logics

- *XFaceMaker 2 Interactive Interface Building Tool*, Non Standard Logics

- *GNU Development Tools*, Free Software Foundation, including

  - GNU C Compiler, Release 1.39-05*

  - GNU C++ Compiler, Release 1.37.1*

  - GNU Symbolic Debugger, Release 3.5

  - GNU Bison Preprocessor, Release 1.06-1

  - GNU Diff, Release 1.15*

  - Revision Control System, Release 5.5

*See *Version Numbers* in the *Problem Workarounds* section of these notes.

**Packaging**   The Atari System V Developer's Kit, whether purchased alone or as part of the complete system contains the following:

- Atari System V Developer's Manual, consisting of the following:
  - Release Notes
  - *Atari System V Developer's Guide*
  - *Atari System V Style Guide*
  - *WISh2, Version 1.1.0, User's Guide, Version 1.1*
  - *Wx2 User's Guide, Version 2.1*
  - *XFaceMaker 2 User's Guide, Version 1.1.0.i*
  - The Atari System V/TOS Boot Preference diskette
- *AT&T UNIX System V Release 4, Product Overview and Master Index*
- Three-button mouse
- GNU source code card
- Developer's Registration Form
- Either LXT213SY(213 MB) or LXT340 (340 MB) Maxtor hard drive
- Atari System V developer's release software (installed on hard disk)
- Atari System V License Agreement

**Optional Items**   In addition, the following items may be purchased for Atari System V:

- GNU source code tape cartridge

  The GNU software contained in this Developer's Release is a product of the Free Software Foundation. Some of this software has been modified to optimize its performance with Atari System V. Under the terms of its license with OSF, Atari will make available the original source code for these products to the purchaser of an Atari System V. There is a nominal fee involved which defrays the cost of media, duplication, and shipping. For further information, contact the Atari representative from whom you purchased your Atari System V developer's release.

- Atari VME/Ethernet networking card
- 16-MB memory board

**Tools**   Six Atari System V window-based tools are available with this release. These are

- Kernel Configuration
- Product Installation
- X Console Configuration
- File System Management
- Set Boot Preference
- Set Global Variables

Five of the tools are documented in the *Atari System V Developer's Guide*. The Global Variables tool is described in the next section of these notes.

❏   Because these tools are not yet implemented from the WISh tool tray (as described in the developer's guide), each of them is accessed by choosing "System Administration Tools" from the Desktop menu.

**Global Variables**
The Global Variables Editor tool allows a system administrator to create environmental variables and change their values without use of shell commands. The commands to create the desired variables are constructed by the globals tool and stored in the file */etc/globals*.

The global variable stored in */etc/globals* will become the defaults for all users; however, users may override any of these defaults by changing settings in their private startup files.

1. **Select Global Variable Settings from the System Administration menu.**

   The Global Variables Editor window appears, presenting global variables in a scrolled list.

   a. **To add a variable, enter its name in the Name text input field and click the Select mouse button on the Add window button.**

   b. **To modify a variable, select the variable from the list, enter the modified value in the Value text input field and click the Select mouse button on the Modify window button.**

   c. **To move a variable, click Select on the Move window button. Enter the new position of the variable in the window that pops up.**

   d. **Delete a variable by selecting it from the list and clicking Select on the Delete window button.**

2. **To restore values to those that existed before the current editing session, Select the Restore option from the File Menu.**

3. **To apply value changes made during the current editing session, Select the Save option from the File menu.**

   Changes are saved to */etc/globals*.

   ❏ At this time, the contents of */etc/globals* is not provided to users who log in using the C shell (csh). As a temporary workaround, a parallel file, */etc/globals.csh* is provided, but not updated by the Globals tool. To support users of the C shell, the system administrator must update */etc/globals.csh* manually each time the */etc/globals* file is changed.

**Configuration Requirements**

*Hardware*
Part numbers of special hardware:

- Any one of the following three boards may be used on your TT; however, the first one, Rev B.1, must be taken to your Atari representative for modification.
  - C301763-001, TT030 FAB, Rev B.1
  - C301763-001, TT030 FAB, Rev D
  - C302406-001, TT030 FAB, Rev A

- RAM required: 8 MB

*Software*
Required software: All software required to run Atari System V is included on the hard disk.

## Supported Hardware

Atari System V running on the Atari TT030 has been tested with a number of different devices. Below is a list of devices verified against the hardware and software:

- SCSI Bus: Hard Disks
    - Maxtor LXT213SY 213-MB hard disk drive
    - Maxtor LXT340SY 340-MB hard disk drive
    - Seagate ST1239N 239-MB hard disk drive
    - Seagate ST1480 480-MB hard disk drive
- SCSI Bus: Other Devices
    - MaxStream 250Q 250-MB tape backup system
- ACSI:
    - Note that ACSI hard disk drives are not supported by Atari System V; however, it is possible to keep ACSI hard disk drives connected to the system for the purpose of running the TOS operating system.
- VME Bus:
    - Atari VME Ethernet card
- Memory Boards:
    - 16-MB memory board

## Third-Party Products

Developers of software and/or hardware who have adapted their products for operation with Atari System V may have these products included in an Atari third-party products reference catalog by providing the following:

1. Complete vendor contact information.

2. A general description of the product as it would be portrayed in a reference catalog.

3. A statement on how the product was tested.

4. References to at least two customer sites using the product.

5. A sample product, including documentation.

Atari may conduct its own evaluation before including the product in its reference catalog, but will make no claim or warrant for any third party product. The purpose of the Atari third-party reference catalog is simply to inform customers of the availability of these products from their respective manufacturers.

For more information, contact

Atari Corporation
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  Sunnyvale, CA 94089-1302
  Attn:    Art Pruzynski
           System V Marketing Manager
           Telephone (408) 745-2172
           FAX       (408) 745-2088
           uunet!cs.utexas.edu!ames!atari!artp

## Package Information

This release is composed of 45 software packages, as listed in the following table. The table also shows the space that each one occupies on the hard disk and whether it is required, recommended, optional, or shareable. The system may not run if a required package is deleted. You will probably want to keep the recommended packages, the optional packages may be deleted at your discretion, and shareable packages are those that are commonly shared across a network.

| Name | Description | Blocks | Status |
|---|---|---|---|
| AtariLib | Atari Application Library | 543 | Required |
| Filsys | File System Administration Tool | 266 | Recmnded |
| GNU | GNU Software Development Tools | 3714 | Recmnded |
| KrnlCnfg | Kernel Configuration Tool | 614 | Recmnded |
| MOTIF | OSF/Motif Environment | 18419 | Required |
| PInstall | Production Installation Tool | 314 | Recmnded |
| RCS | Revision Control System | 1613 | Optional |
| Wish2 | WISh2 | 7545 | Required |
| Wx2 | Wx2 | 634 | Recmnded |
| XConsole | X Console Configuration Tool | 413 | Recmnded |
| XFM2 | XFaceMaker 2 | 211560 | Optional |
| bnu | Basic Networking Utilities | 3299 | Required |
| cds | C Development Set | 14281 | Recmnded |
| codeset | Local Language Codeset Support | 205 | Required |
| compat | Compatibility Package | 6663 | Recmnded |
| core | UNIX Essential System Utilities | 29438 | Required |
| crypt | Security Administration Utilities | 961 | Required |
| dfm | Directory and File Mgmt Utilities | 2062 | Required |
| dfs | DFS Utilities | 69 | Required |
| ed | Editing Utilities | 886 | Required |
| epu | Enhanced Programming Utilities | 6498 | Required |
| face | AT&T Framed Access Cmnd Environment | 742 | Required |
| globals | Global Variables Editor Tool | 245 | Recmnded |
| gls | Prelocalised Utilities for Atari | 117 | Required |
| inet | Internet Utilities | 4631 | Required |
| ipc | Interprocess Communication Utilities | 215 | Required |
| locale | Local Language Support | 1638 | Required |
| lp | LP Print Service | 7160 | Required |
| man | Man Pages | 19105 | Shareable |
| misc | Miscellaneous Scripts and Man Pages | 191 | Required |
| nfs | Network File System Utilities | 1592 | Recmnded |
| nsu | Networking Support Utilities | 1818 | Required |
| perf | System Performance Analysis Utilities | 1325 | Recmnded |

**_Package Information,_**
**_continued_**

| Name | Description | Blocks | Status |
|------|-------------|--------|--------|
| platform | Platform Specifics | 4462 | Required |
| rfs | RFS Utilities | 3826 | Optional |
| rpc | Remote Procedure Call Utilities | 2269 | Required |
| setboot | Set Boot Preference Tool | 157 | Recmnded |
| spell | SPELL Utilities | 469 | Optional |
| sprinfo | System Problem Report | 38 | Optional |
| sys | System Header Files | 3792 | Optional |
| sysadm | System Administration Utilities | 9203 | Required |
| terminf | Terminal Information Utilities | 570 | Shareable |
| ufs | UFS Utilities | 1872 | Required |
| usrenv | User Environment Utilities | 1829 | Required |
| xcp | XENIX Compatibility Package | 400 | Recmnded |

**_Software Tips_**
**_and Problem Workarounds_**

◆ **Running** rwhod **on Large Networks**

The **rwhod** daemon can bog down a very large network. If you have more than twenty machines on your network, you may consider turning off the **rwhod** daemon, depending on how much the network is being used. If you have more than 100 machines on a network, turning off the **rwhod** daemon is essential. Refer to the **rwhod** man page for more information.

◆ **Using awk Versus nawk**

Atari System V contains two versions of the **awk** utility. The newer version, **nawk**, has some expanded features and will be the standard **awk** in future releases of the operating system. New developers may wish to begin using it with this release. Read the **awk(1)** and **nawk(1)** man pages for information on the features of each utility.

◆ **Memory Boards**

Eight megabytes of random access memory (8MB RAM) are required to run Atari System V. RAM is divided into two banks, ST RAM and TT RAM. Both are available to Atari System V. Two megabytes of ST RAM are provided on the system board. An additional two megabytes of ST RAM are on an add–on board. A 4MB TT RAM board is also installed on your system, making a total of 8MB RAM.

Your system may have a 16MB TT RAM board instead of the 4MB TT RAM board, making a total of 20MB RAM.

Users with memory intensive applications may wish to upgrade their systems with additional memory.

Developers are strongly encouraged to add a 16MB memory board to their Atari TT030 to run the XFaceMaker 2 tool. Although the tool can run in 8MB RAM, it provides greater performance with additional memory.

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### ◆ Backup Devices

Diskette drives are installed in all Atari TT030 systems. Diskettes hold 720 kilobytes of data. Developers with more than ten megabytes of data are encouraged to purchase a tape backup device. Tape backup devices are more efficient for backing up large amounts of data.

### ◆ Sharing System Files on a Network

If you have Atari TT030 machines running Atari System V on a network, you may wish to save disk space on some of the machines by sharing certain system files across the network using NFS. The directory called */usr/share* is easily shareable: the information is constant across machines and is not required for the functioning of any single machine. Among the items in this directory are manual pages, which take up about 10MB of disk space; terminal information files, which take up about 1-1/2 megabytes of disk space; and various other data files.

To save disk space, make one machine the server that keeps the */usr/share* directory. Run the **share** command on this machine to give permission to other machines to mount */usr/share*. On the other systems, remove the contents of */usr/share* and **mount** the */usr/share* from the server machine.

See the manual pages for **share** and **mount** for more information on this procedure.

### ◆ Version Numbers

A number of the utilities in */usr/local/bin* and */usr/local/lib* have had version numbers stamped into their binaries by MCS. Some of these utilities also have a command line option to print out a version number. This version number was hard-coded into the source code, and may differ from the number assigned by MCS. The following example illustrates the discrepancy:

```
# mcs -p /usr/local/bin/gcc
/usr/local/bin/gcc:
```

```
@(#) /usr/local/bin/gcc, version 1.39-05
Gnu C compiler
Tue Aug 27 17:52:43 EDT 1991
```

```
# gcc -v
gcc version 1.40
```

This problem does not affect the functionality of the utilities.

### ◆ Mouse Cursor

The mouse cursor occasionally begins to drift across the screen, either in a vertical or a horizontal line. Moving the mouse slightly will stop the drift. If a click–to–type focus policy is selected (this is the default for the Motif window manager), the drift may not even be noticed. If a follows–pointer policy is used, focus may occasionally be lost until the mouse cursor is restored to the current window.

### ◆ SCSI External Device Setup

Some idiosyncrasies may appear during configuration of the external SCSI chain; e.g., if there is only one device on the external SCSI chain, the machine may not boot. The rules for a successful configuration are

1. Both ends of the SCSI chain must be terminated.

2. Each SCSI device must have its own unique ID number. (A tape drive must use SCSI ID 4 or 5.)

## Reporting Problems

Because you have purchased a developer's prerelease of the Atari System V operating system, you will be participating in the early development of applications as well as testing of the operating system release issued by Atari.

Atari wants your feedback on problems found in the release as well as suggestions on improving the product. For this reason, the release contains two programs that comprise a system for reporting problems. This system is called the System Problem Reporting (SPR) System.

The first program, called **spradm**, logs information about your site, including your company name and address, your electronic mail address, the configuration of your hardware and software. This program should be executed when you first receive the system. After that, it only needs to be re-executed if information changes.

The second command, called **spr**, asks for a brief description of the problem detected (or an explanation of your request for enhancement) and a step-by-step description of how to reproduce the problem. It then saves the information into a file, along with a copy of the site information from **spradm**.

Send this file to Atari, either by postal mail or by electronic mail.

To send by postal mail, copy the file to a floppy disk using the command:

```
tar cvf /dev/floppy filename
```

Mail the floppy disk to:

Atari System V Support
Atari Computer GmbH
Zwiegniederslassung 89–91
W–6096 Raunheim
Germany

The diskette will be mailed back if you provide a return envelope with postage.

If possible, we would prefer receiving an SPR by electronic mail. An electronic mail network will be established in Europe in October, 1991. Purchasers of the developer's release will be informed about connecting to the network at that time.

## Outstanding Problems

Following is a list of the current Atari System V , Release 4, reported problems.

- The **sdb** symbolic debugger has trouble tracking source code line numbers correctly for those source modules which include the standard header file *<sys/stat.h>*.

- The **terminfo** entry for **xterm** is not fully debugged and there may be problems with function keys from within xterm windows. (ref# V4_169)

- When excluding the NFS module from the kernel configuration, the KRPC and KLM modules must also be excluded. This is not handled automatically by the dependencies.

- NFS may occasionally lose write packets. The NFS block–I/O daemon (**biod**) should not be run on this release to minimize the occurrence of this problem (as delivered, it is not enabled).

- Using **useradd** with the –s option to specify an alternate shell (*/usr/bin/ksh* or */usr/bin/csh*) may not always create a properly working account. The circumstances under which this occurs are uncertain.

***Outstanding Problems, continued***

- The **ls** program and the **sort** program don't use the collating sequence specified by the LC_COLLATE file selected by the $LANG environment variable.

- The **file** program fails on entries under the **proc** file system type (by default this file system is mounted as **/proc**). Running **file** on such programs usually results in the `"Cannot read: I/O error"` message.

- The **pkgadd** program occasionally gives the default file modes to files which have individual modes specified in the package prototype file. The **pkgchk** program appears to make the same errors in parsing the prototype file.

- The **mailx** program does not by default read 8–bit data. The $LANG variable must index to an LC_CTYPE file which specifies an 8–bit character set; if this has not been set up, **mailx** will refuse to display messages containing 8–bit data, calling them "binary".

- The **compress** program won't handle longer than 12–character file names, even on a UFS file system where such file names are allowable. If the source filename is 13 characters or more, compress complains that `"Filename too long to tack on .Z"`. This happens even if the option to send data to **stdout** (compress **–c**) was used.

- The man page for **ndbm** says that the new **dbm** library functions are invoked by specifying **–ldbm** to the loader; in fact, these functions are obtained by specifying **–lucb**, and the OLD **dbm** routines by specifying **–ldbm**.

- If **stty cs7** is selected, bit 7 may contain the parity or stop bit.

- If the **setruid** function is used within a program to become superuser, it only works the first time it is invoked within that program.

- Although directories exist for a variety of locales under */usr/locl/locale*, only the **english_usa** locale is fully supported at this time. Most of the message catalogues in the other locales are in fact the **english_usa** message catalogues.

- The WISh2 desktop does not yet show icons for the Atari System Administration tools.

- Complete help is not yet available for all Atari System Administration tools. Some requests for help on context may be ignored, or may result in a dialog box which states that no help text is available.

- The **filsys** System Administration tool requires networking support to be installed. If an Ethernet controller is not installed in the system, the tool cannot be activated. The workaround is to use the regular command–line interface, namely the **fsck** program.

- The GNU C++ compiler (g++) is not functional in this release.